

MOS FET Relays

G3VM-21LR11

High-power, 0.9-A Switching with SSOP Package in a 20-V Load Voltage Model.

- RoHS compliant

Application Examples

- Semiconductor inspection tools
- Measurement devices
- Broadband systems
- Data loggers



NEW

Note: The actual product is marked differently from the image shown here.

List of Models

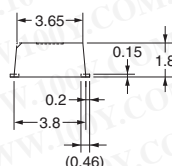
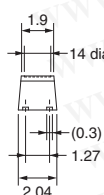
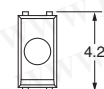
Contact form	Terminals	Load voltage (peak value)	Model	Number per tape
SPST-NO	Surface-mounting terminals	20 V	G3VM-21LR11	---
			G3VM-21LR11(TR05)	500
			G3VM-21LR11(TR)	1,500

Note: Use "TR05" instead of "TR" in the part number, to obtain reels with 500 pc/reel. (e.g., G3VM-21LR11(TR05))

Dimensions

Note: All units are in millimeters unless otherwise indicated.

G3VM-21LR11

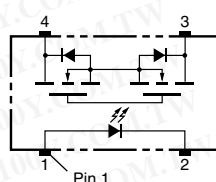


Note: A tolerance of ± 0.1 mm applies to all dimensions unless otherwise specified.

Weight: 0.03 g

Terminal Arrangement/Internal Connections (Top View)

G3VM-21LR11

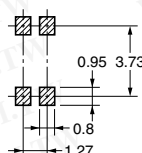


The actual product is marked differently from the image shown here.

Beveled side is input side.

Actual Mounting Pad Dimensions (Recommended Value, Top View)

G3VM-21LR11



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

■ Absolute Maximum Ratings (Ta = 25°C)

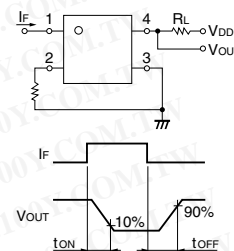
Item		Symbol	Rating	Unit	Measurement Conditions
Input	LED forward current	I _F	50	mA	
	LED forward current reduction rate	Δ I _F /°C	-0.5	mA/°C	T _a ≥ 25°C
	LED reverse voltage	V _R	5	V	
	Connection temperature	T _j	125	°C	
Output	Load voltage (AC peak/DC)	V _{OFF}	20	V	
	Continuous load current (AC peak/DC)	I _O	900	mA	
	ON current reduction rate	Δ I _O /°C	-12	mA/°C	T _a ≥ 50°C
	Connection temperature	T _j	125	°C	
Dielectric strength between input and output (See note 1.)		V _{I-O}	1,500	V _{rms}	AC for 1 min
Ambient operating temperature		T _a	-20 to +85	°C	With no icing or condensation
Storage temperature		T _{stg}	-40 to +125	°C	With no icing or condensation
Soldering temperature		---	260	°C	10 s

Note: 1. The dielectric strength between the input and output was checked by applying voltage between all pins as a group on the LED side and all pins as a group on the light-receiving side.

■ Electrical Characteristics (Ta = 25°C)

Item	Symbol	Minimum	Typical	Maximum	Unit	Measurement conditions
Input	LED forward voltage	V_F	1.0	1.15	1.3	V
	Reverse current	I_R	---	---	10	μA
	Capacity between terminals	C_T	---	15	---	pF
	Trigger LED forward current	I_{FT}	---	---	3.0	mA
Output	Maximum resistance with output ON	R_{ON}	---	0.18	0.22	Ω
	Current leakage when the relay is open	I_{LEAK}	---	0.2	1.0	nA
	Capacity between terminals	C_{OFF}	---	40	80	pF
Capacity between I/O terminals		C_{I-O}	---	0.3	---	pF
Insulation resistance between I/O terminals		R_{I-O}	1,000	---	---	M Ω
Turn-ON time		t_{ON}	---	0.3	2.0	ms
Turn-OFF time		t_{OFF}	---	0.2	1.0	ms

Note: 2. Turn-ON and Turn-OFF Times



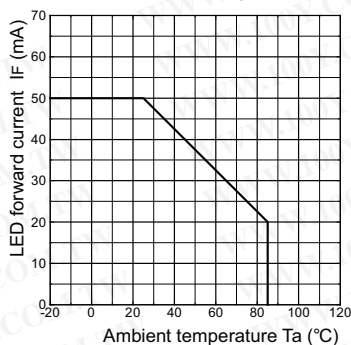
■ Recommended Operating Conditions

Use the G3VM under the following conditions so that the Relay will operate properly.

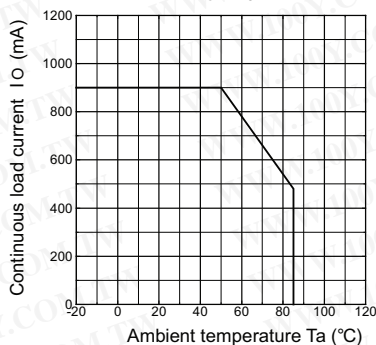
Item	Symbol	Minimum	Typical	Maximum	Unit
Load voltage (AC peak/DC)	V_{DD}	---	---	20	V
Operating LED forward current	I_F	---	---	20	mA
Continuous load current (AC peak/DC)	I_O	---	---	900	mA
Operating temperature	T_a	-20	---	65	°C

Engineering Data

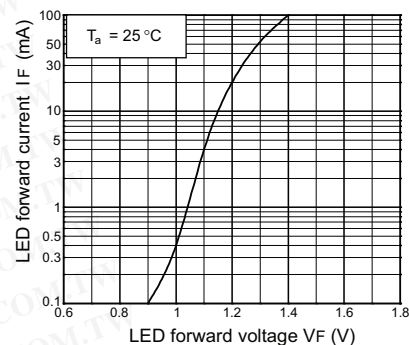
LED forward current vs. Ambient temperature
IF - Ta



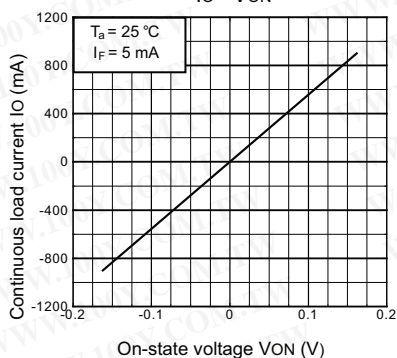
Continuous load current vs. Ambient temperature
IO - Ta



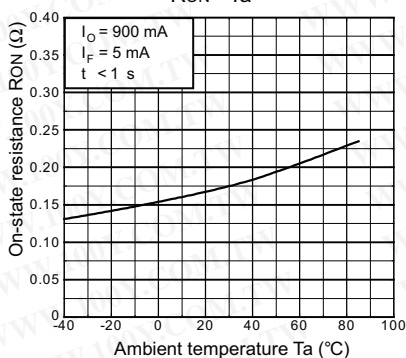
LED forward current vs. LED forward voltage
IF - VF



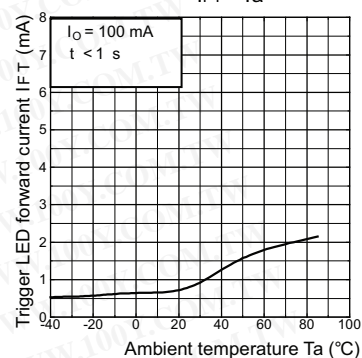
Continuous load current vs. On-state voltage
IO - VON



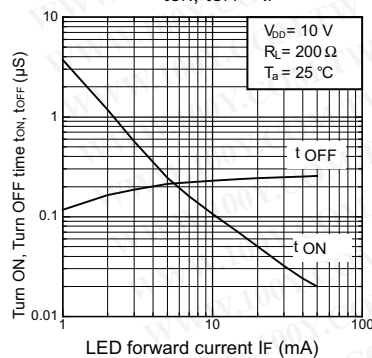
On-state resistance vs. Ambient temperature
RON - Ta



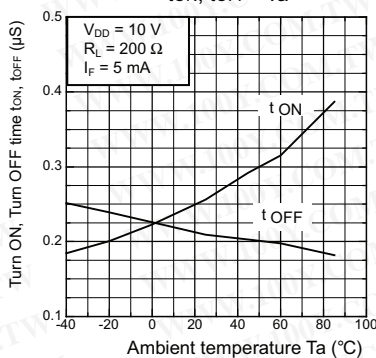
Trigger LED forward current vs. Ambient temperature
IFT - Ta



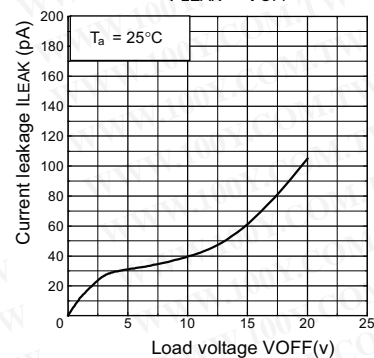
Turn ON, Turn OFF time vs. LED forward current
tON, tOFF - IF



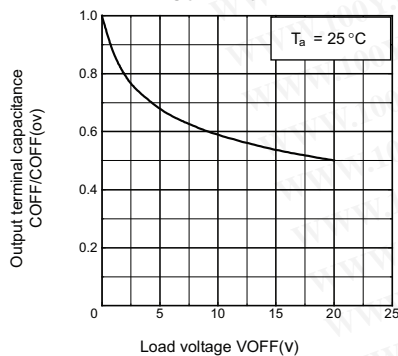
Turn ON, Turn OFF time vs. Ambient temperature
tON, tOFF - Ta



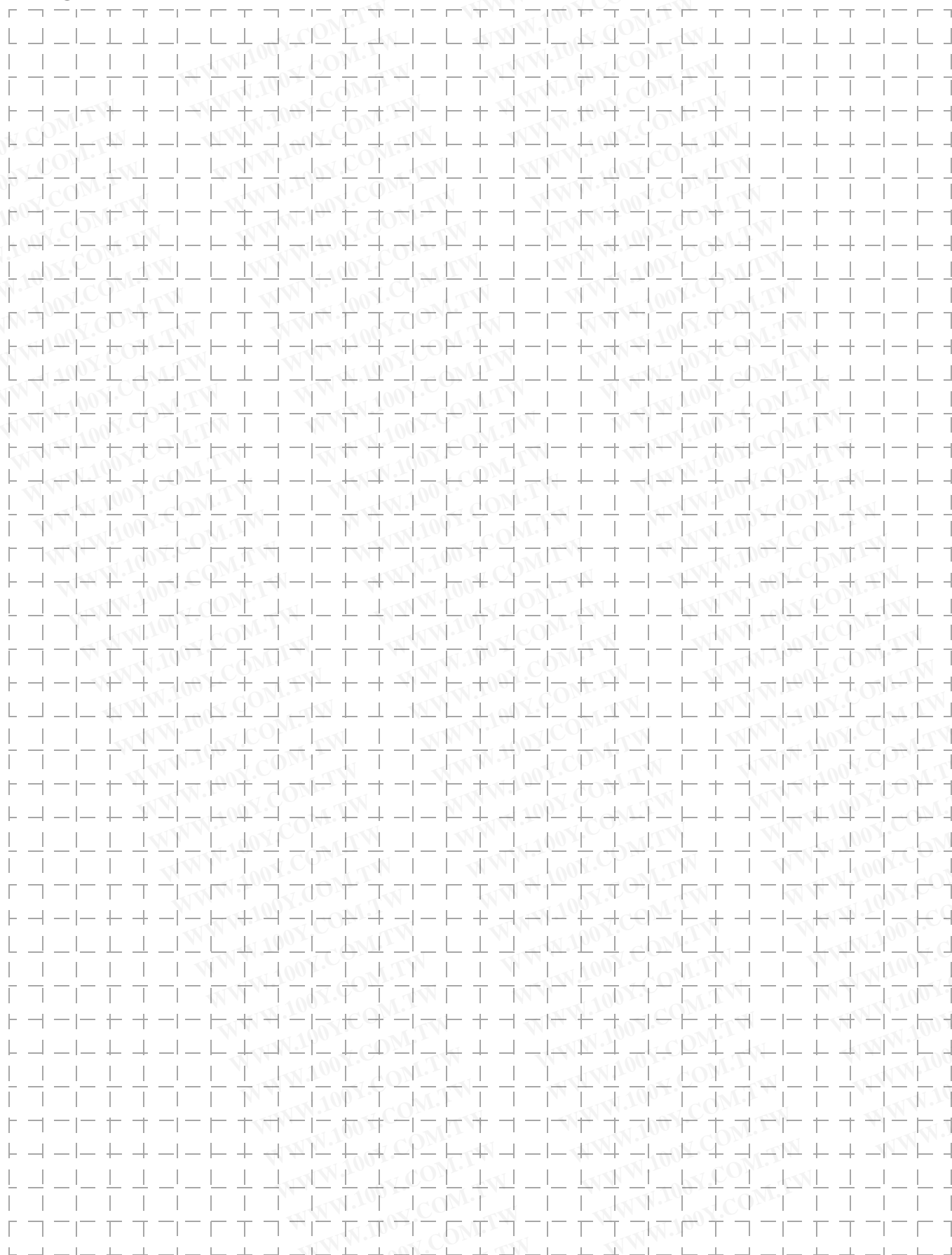
Current leakage vs. Load voltage
ILEAK - VOFF



Output terminal capacitance COFF/COFF(ov) vs. Load voltage
COFF - VOFF



NTA



Omron Electronic Components, LLC

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 - Delivery and shipping dates are estimates only; and
 - Seller will package Products as it deems proper for protection against normal handling and extra charges apply to special conditions.
- Claims:** Any claim by Buyer against Seller for shortage or damage to the Products occurring before delivery to the carrier or any claim related to pricing or other charges must be presented in detail in writing to Seller within 30 days of receipt of shipment.

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ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

OMRON

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